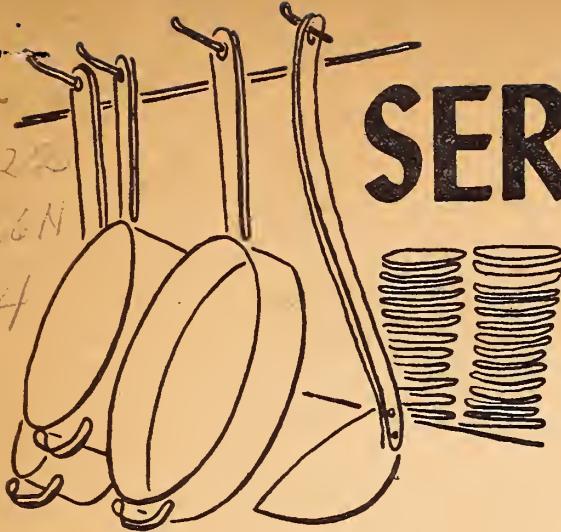


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PROPER VEGETABLE PREPARATION PRESERVES COLOR, FLAVOR CONSERVES NUTRITIVE VALUE

At this time when some of the popular foods are scarce, it is important to utilize the available foods to the best advantage. It is not enough for the food manager merely to include plentiful foods on the menu to "sell" them to the workers. In order to have sales appeal, fresh vegetables, for example, must be prepared so that they will look attractive and taste good.

It is fortunate that the methods of cooking vegetables that best preserve their natural color and fine flavor also tend to conserve a larger amount of their nutritive value than do the less satisfactory methods. Overcooking and long standing after cooking not only change vegetable colors from fresh greens and clear yellows to olive drab and grayed yellow tones, but at the same time destroy much of the nutritive value of the vegetables.

Research in the Quantity Cooking of Vegetables

During the last few years the effects of cooking vegetables in quantity by various methods of the retention of nutritive values has been studied. The interest of the Army and Navy in findings of this kind, as they affect the nutrition of men and women in the armed services, has stimulated much of this research.

PLENTIFUL FOODS

Fresh fruits and vegetables expected to be plentiful in most markets in the Northeast Region during the month of July include peaches, tomatoes, cabbage, snap beans, and carrots (especially after mid-July).

Other foods which will be available in abundant supply are dry edible peas; dry-mix soups; soya flour, grits, and flakes; citrus marmalade; apple butter, jellies, grape, plum and fig jams; wheat flour and bread; macaroni, spaghetti, noodles; oatmeal.

Vegetables contain varying amounts of nutrients depending on the variety, stage of maturity and ways in which they have been stored and shipped. Green and yellow vegetables supply vitamin A and some also supply vitamin C and vitamin B₁. Tomatoes are a good source of both vitamins A and C. Potatoes, because of the relatively large quantities eaten by most workers, are a fairly good source of vitamin C and iron.

Most of the research on vegetables cooked in quantity has been to determine the effect on the retention of vitamins A, B₁, and C. Although all the results have not been conclusive, and more experimental work needs to be done, the studies indicate the trend of procedures in cooking and handling vegetables to be followed in industrial feeding.

VEGETABLE RESEARCH FINDINGS

1. Minimize Vitamin and Mineral Losses. Cooking always causes some loss in the nutritive value of vegetables. The causes for these losses are exposure to heat, water, and air. Methods of large quantity vegetable cookery that reduce exposure to these factors to a minimum are steam cooking and coiling in a steam-jacketed kettle.

2. Bring Vegetable Quickly to the Boiling Point. Another reason for cooking vegetables in a steam-jacketed kettle, instead of on top of the stove, is that the retention of vitamin C is greater when the time it takes the food to heat through and begin to cook is short. Large quantities of vegetables placed in boiling water lower the temperature of the water. The time required to bring the water back to the boiling point is shorter when a steam-jacketed kettle is used.

3. Cook Vegetables a Short Time to Retain Nutritive Values. Not only the temperature, but the length of time that vegetables are cooked affects the amount of nutrients that are lost. Fast cooking for a short time results in a smaller loss in food value than that resulting from slower cooking. Vegetables steamed for a short time in a compartment pressure steamer retain more nutritive value than those cooked a longer time in boiling water. The high temperature in the pressure steamer may be destructive to the vitamin content of vegetables if they are overcooked; therefore, the time schedule should be watched carefully so that the vegetables are cooked in the shortest possible time possible to make them tender.

4. Use as Little Boiling Water as Possible When Cooking Vegetables. Food losses are increased when vegetables are cooked in excessively large amounts of water because the nutrients dissolve out in the water. When vegetables are cooked in a steam-jacketed kettle just enough

boiling water should be used to prevent the vegetables from sticking and to bubble up through the mass.

5. Do Not Cook Vegetables at a "Galloping" Boil or Stir Them Unnecessarily. Keep the water in which vegetables are broked, for this increases the vitamin and mineral losses. Stirring vegetables while they are cooking increases the exposure to air and there the vitamin C loss, and should be avoided.

6. Cook Vegetables Whole or in Large Pieces to Conserve Their Nutritive Value. Less of the nutrients is destroyed by exposure to air and water when the vegetables are cooked whole or in large pieces. Young, tender vegetables should be cooked whole, and older ones should be cut in halves, quarters, or strips rather than in smaller pieces.

7. Cook Vegetables Immediately Before they Are Served. Holding vegetables in either a bain marie, or steam table after they are cooked, or even letting them stand at room temperature increases the loss of vitamins. Long holding periods are especially harmful. Vegetables should be cooked as short a time as possible before they are served.

The rules for cooking vegetables given below are based on the experimental studies on vegetable cookery. If they are followed in your plant, vegetables should be better cooked and have higher nutritive value. Try posting these rules for the guidance of the vegetable cooks

Post in the Kitchen

Rules for Cooking Vegetables

1. Steam tender vegetables, such as asparagus tips, broccoli, cabbage, and cauliflower, shallow pans without water.
2. Steam potatoes and root vegetables in perforated steamer pans.
3. Boil leafy green vegetables, green peas, green beans, corn on the cob, and onions in a steam-jacketed kettle using just enough salted water to bubble up through the vegetables.
4. Cover vegetable while they are boiling.
5. Do not stir vegetables unnecessarily while they are cooking.
6. Whenever possible, cook vegetables whole, or as halves, quarters, or strips rather than thin slices, small dices, or fine shreds.
7. Cook vegetables until just tender and serve them as quickly as possible.
8. Cook vegetables on a staggered schedule and replenish the steam table supply every 15 or 20 minutes.
9. Use the liquid in which vegetables have been cooked for soups, sauces, and gravies.

Post in the Kitchen

Timetable for Cooking Vegetables

<u>Kind of Vegetable</u>	<u>Pre-Cooking Preparation</u>	<u>Method of Cooking</u>	<u>Time in Minutes</u>	<u>1/</u>
Asparagus	Tough stalk removed	Compartment steamer	8 to 10	
Beans, lima	Shelled	Steam-jacketed kettle	30	
Beans, snap	Whole or cut in $1\frac{1}{2}$ " lengths	Steam-jacketed kettle	20 to 30	
Beets	Unpeeled	Compartment steamer	60 to 90	
Beets	Peeled and diced	Compartment steamer	8 to 10	
Beet greens	Tough stems removed	Steam-jacketed kettle	8 to 10	
Broccoli	Outer leaves removed, stems split	Compartment steamer	12 to 15	
Brussels sprouts	Trimmed	Compartment steamer	6 to 8	
Cabbage	Cut in sections	Compartment steamer	8 to 10	
Cabbage	Shredded	Compartment steamer	5 to 7	
Carrots	Whole or cut in strips	Compartment steamer	15 to 20	
Cauliflower	Broken in flowerets	Compartment steamer	5 to 8	
Collard greens	Stems removed	Steam-jacketed kettle	20	
Corn-on-the-cob	Shucks removed	Steam-jacketed kettle	8 to 10	
Kale	Cut coarsely	Steam-jacketed kettle	15 to 20	
Onions	Peeled, whole	Steam-jacketed kettle	15 to 20	
Parsnips	Whole or half	Compartment steamer	20	
Peas, green	Shelled	Steam-jacketed kettle	10 to 15	
Potatoes, Irish	Pared, whole, or in jackets	Compartment steamer	25 to 40	
Potatoes, sweet	Whole	Compartment steamer	30 to 40	
Rutabagas	Pared	Compartment steamer	30 to 40	
Squash, summer	Cut in wedges	Compartment steamer	12 to 15	
Squash, Hubbard	Cut in sections	Compartment steamer	20 to 30	
Spinach	Coarse stems removed	Steam-jacketed kettle	5 to 8	
Turnips	Diced	Compartment steamer	20 to 30	
Turnip greens	Tough stems removed	Steam-jacketed kettle	10 to 20	

1/ The range in time is given to provide for differences in variety and maturity of vegetables which may affect the length of the cooking period. The minimum time should be used wherever possible.

Menus for Special Lunches

1.

Hamburg cake
Creamed new potatoes
Tomato salad with green onions
Enriched roll with butter or fortified margarine
Butterscotch pudding
Beverage

3.

Stuffed shoulder of lamb
Parsleyed potatoes
New beets and greens
Enriched bread with butter or fortified margarine
Fruit gelatin
Beverage

5.

Fried fish with lemon
Scalloped potatoes
Fresh asparagus
Whole-wheat bread with butter or fortified margarine
Pink rhubarb sauce
Oatmeal cookie
Beverage

7.

Chicken pie (with celery and peas)
Parsleyed potatoes
Tossed vegetable salad
Enriched rolls with butter or fortified margarine
Fruit cup
Milk

9.

Sausage roll
Mashed potatoes
Buttered carrot strips
Enriched bread with butter or fortified margarine
Peach cobbler
Milk

2.

Vegetable plate:
Baked corn pudding
Buttered green beans
Cabbage and carrot salad
Whole-wheat bread with butter or fortified margarine
Blackberry pie
Milk

4.

Boston style baked beans with salt pork
Fresh buttered broccoli
Sliced tomato and lettuce salad
Brown bread with butter or fortified margarine
Cottage pudding with fruit sauce
Milk

6.

Boiled tongue with horseradish sauce
Mashed potatoes
Fresh spinach
Enriched roll with butter or fortified margarine
Strawberry shortcake
Milk

8.

Cheese omelet
Steamed new potatoes in jackets
Mixed green salad with sliced tomatoes
Enriched bread with butter or fortified margarine
Warm gingerbread
Milk

10.

Baked lima beans with bacon
Scalloped tomatoes
Sliced cucumber salad
Whole-wheat rolls with butter or fortified margarine
Baked custard
Milk

11.

Braised liver
Creamed new potatoes
New cabbage
Whole-wheat bread with butter or
fortified margarine
Applesauce cake
Beverage

13.

Vegetable plate:
Cottage cheese and endive salad
Parsleyed-buttered carrots
Baked potato
Sliced tomato
Whole-wheat bread with butter or
fortified margarine
Fresh rhubarb pie
Milk

15.

Steamed frankfurter
Hot potato salad
Buttered carrots
Whole-wheat bread with butter or
fortified margarine
Jelly roll with lemon cream filling
Milk

12.

Fish loaf with tomato sauce
Parsleyed new potatoes
Cabbage and green pepper salad
Enriched roll with butter or
fortified margarine
Chocolate nut pudding
Beverage

14.

Roast pork
Browned new potatoes
Yellow summer squash
Enriched bread with butter or
fortified margarine
Strawberry ice cream or sherbet
Beverage

Menus for Special Lunches

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Hamburg cake
Creamed new potatoes
Tomato salad with green onions
Enriched roll with butter or fortified margarine
Butterscotch pudding
Beverage

3.

Stuffed shoulder of lamb
Parsleyed potatoes
New beets and greens
Enriched bread with butter or fortified margarine
Fruit gelatin
Beverage

5.

Fried fish with lemon
Scalloped potatoes
Fresh asparagus
Whole-wheat bread with butter or fortified margarine
Pink rhubarb sauce
Oatmeal cookie
Beverage

7.

Chicken pie (with celery and peas)
Parsleyed potatoes
Tossed vegetable salad
Enriched rolls with butter or fortified margarine
Fruit cup
Milk

9.

Sausage roll
Mashed potatoes
Buttered carrot strips
Enriched bread with butter or fortified margarine
Peach cobbler
Milk

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Buttered green beans
Cabbage and carrot salad
Whole-wheat bread with butter or fortified margarine
Blackberry pie
Milk

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Fresh buttered broccoli
Sliced tomato and lettuce salad
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Cottage pudding with fruit sauce
Milk

6.

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Fresh spinach
Enriched roll with butter or fortified margarine
Strawberry shortcake
Milk

8.

Cheese omelet
Steamed new potatoes in jackets
Mixed green salad with sliced tomatoes
Enriched bread with butter or fortified margarine
Warm gingerbread
Milk

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Baked custard
Milk

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Creamed new potatoes
New cabbage
Whole-wheat bread with butter or
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Applesauce cake
Beverage

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Parsleyed-buttered carrots
Baked potato
Sliced tomato
Whole-wheat bread with butter or
fortified margarine
Fresh rhubarb pie
Milk

15.

Steamed frankfurter
Hot potato salad
Buttered carrots
Whole-wheat bread with butter or
fortified margarine
Jelly roll with lemon cream filling
Milk

12.

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Parsleyed new potatoes
Cabbage and green pepper salad
Enriched roll with butter or
fortified margarine
Chocolate nut pudding
Beverage

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Browned new potatoes
Yellow summer squash
Enriched bread with butter or
fortified margarine
Strawberry ice cream or sherbet
Beverage